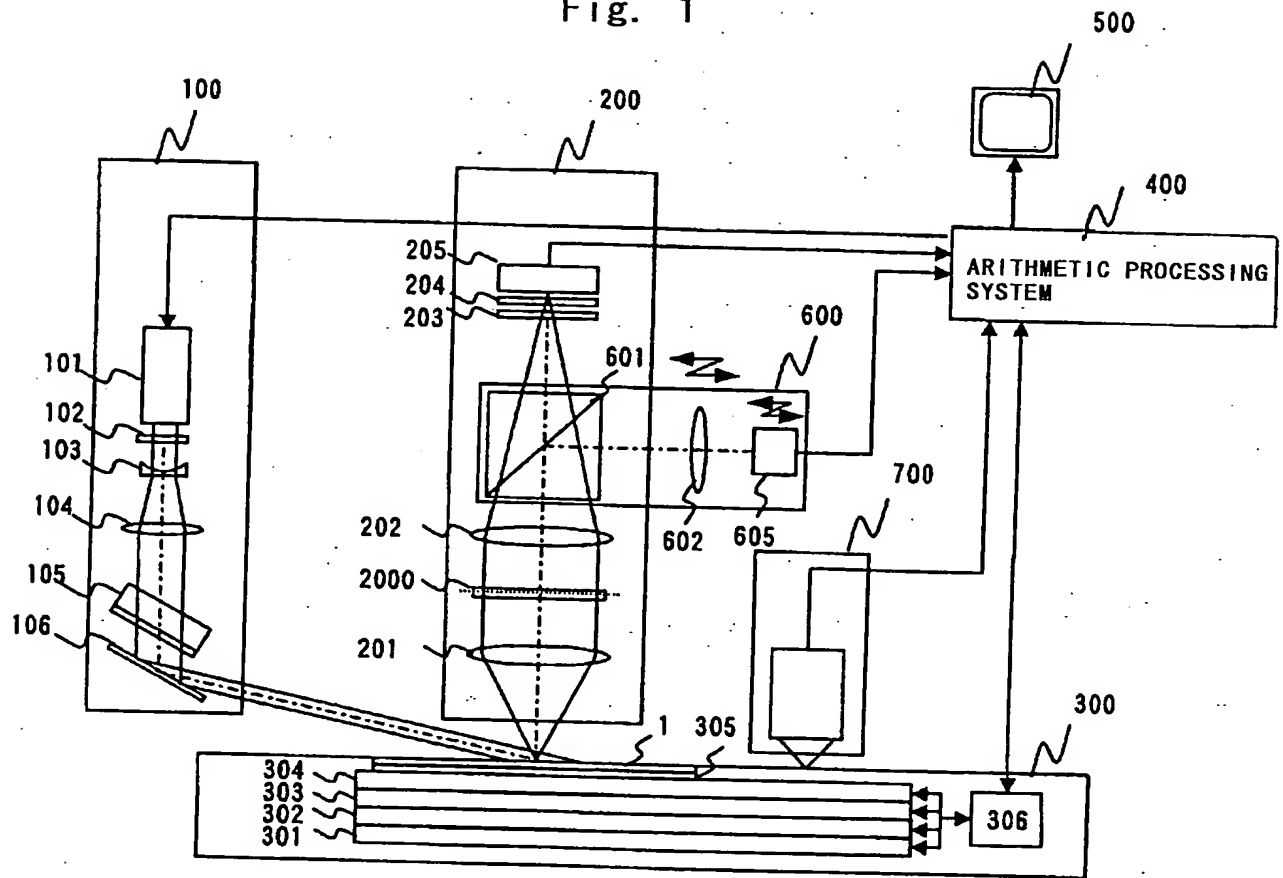# Fig. 1
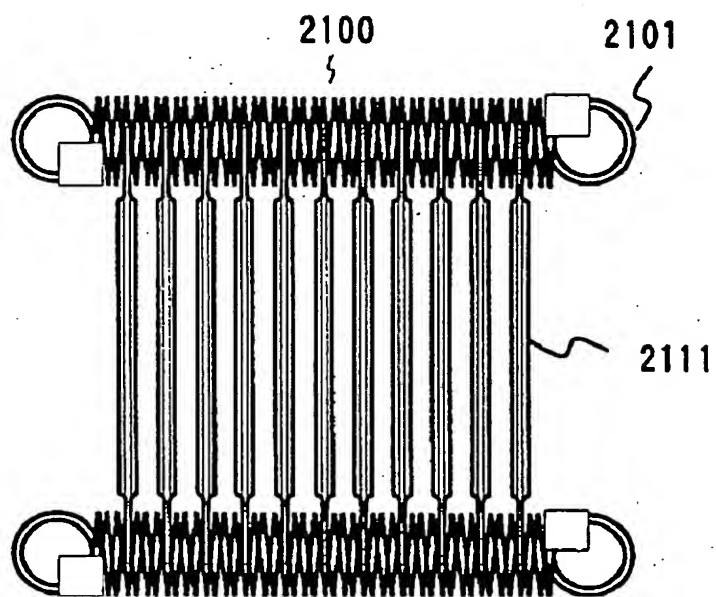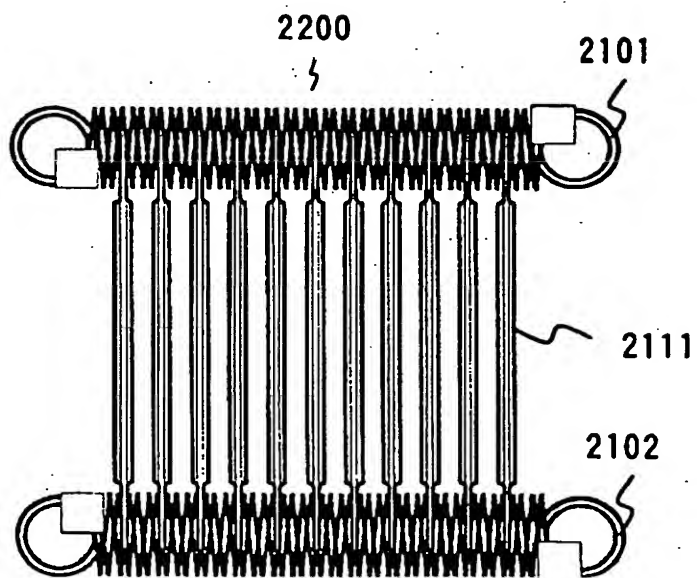
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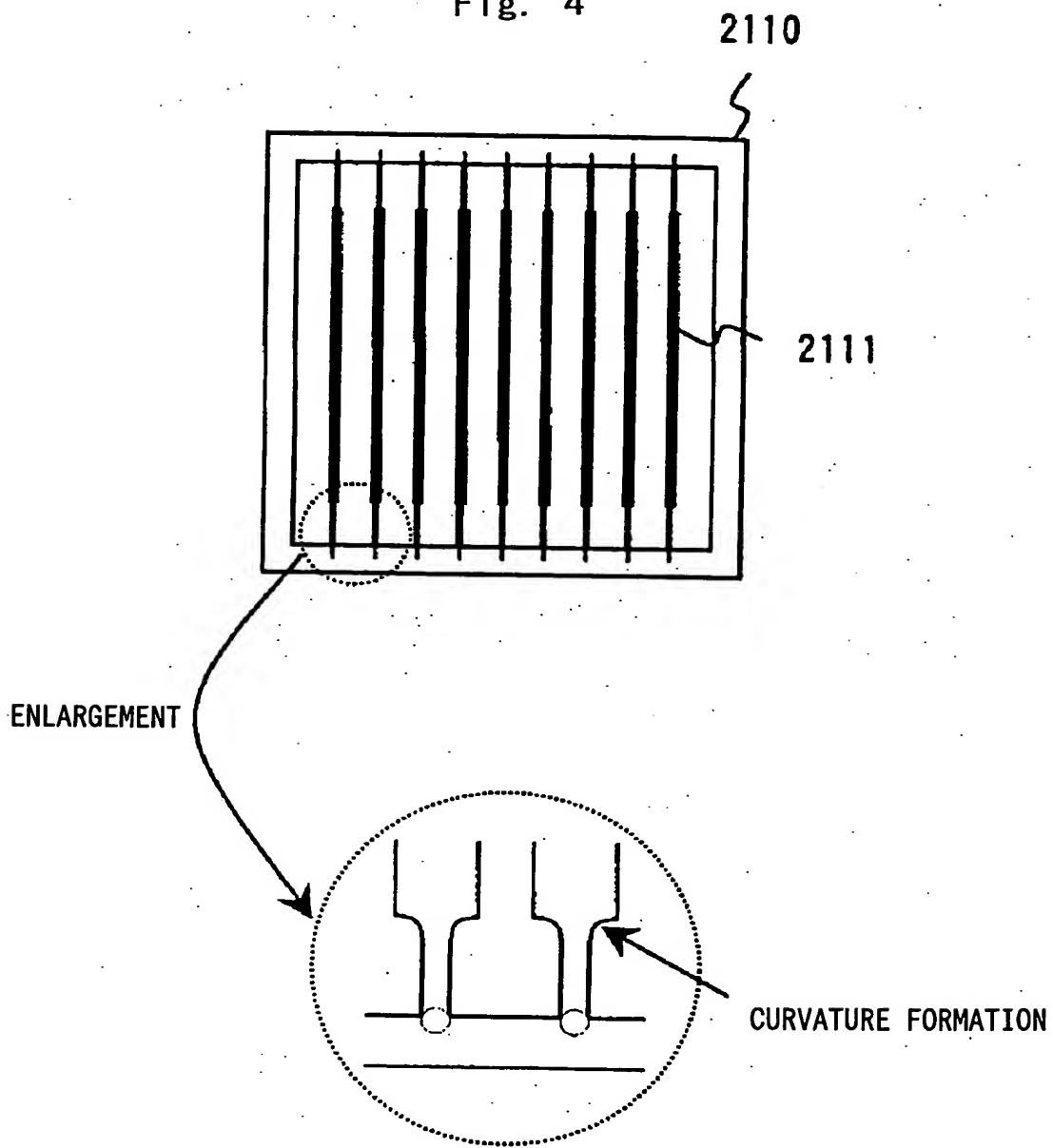

CLOCKWISE TWINING SPRING - CLOCKWISE TWINING SPRING

Fig. 3

CLOCKWISE TWINING SPRING - UNCLOCKWISE TWINING SPRING

Fig. 4

2110
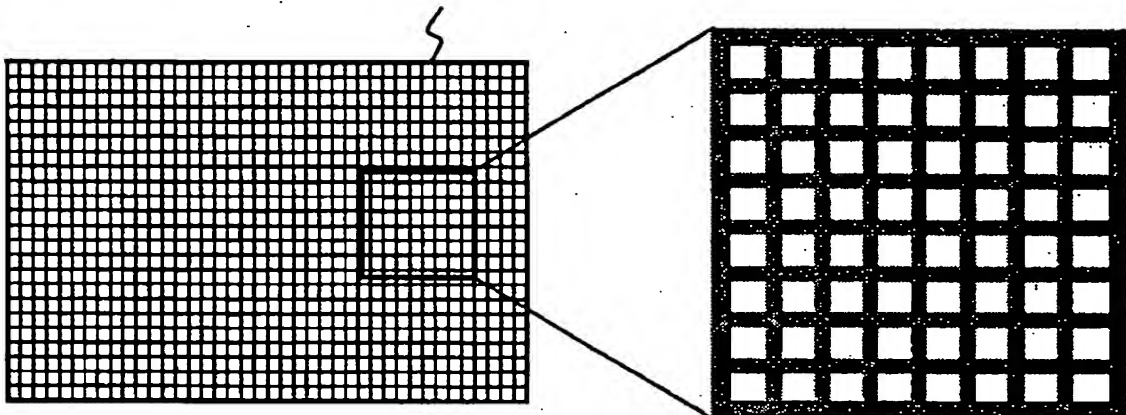
2111

ENLARGEMENT

CURVATURE FORMATION

Fig. 5

TRANSMISSION TYPE
LIQUID CRYSTAL

2300

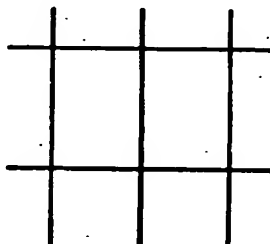
Fig. 6

MIRROR ARRAY DEVICE

2400
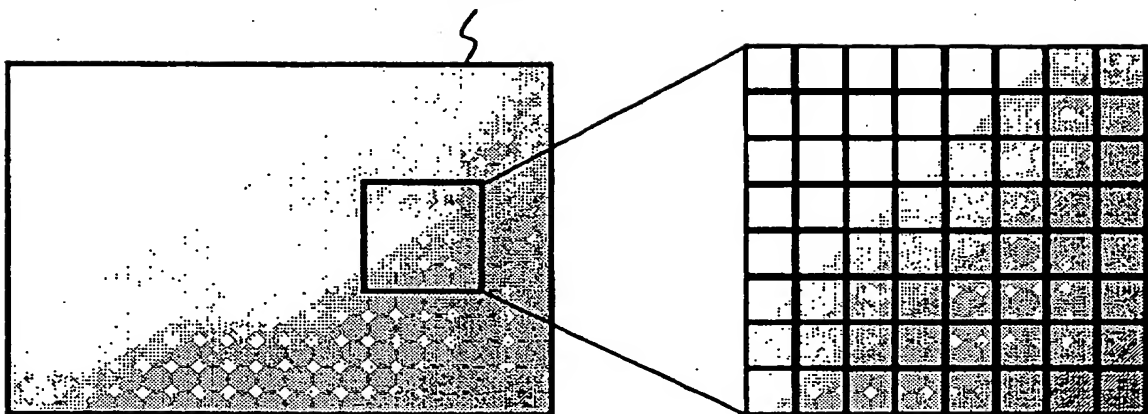
Fig. 7
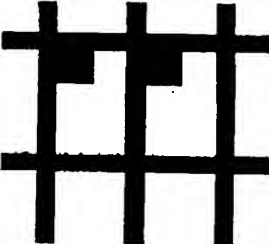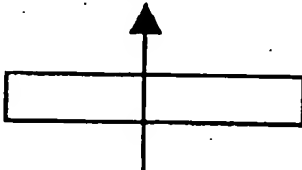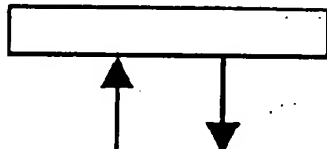
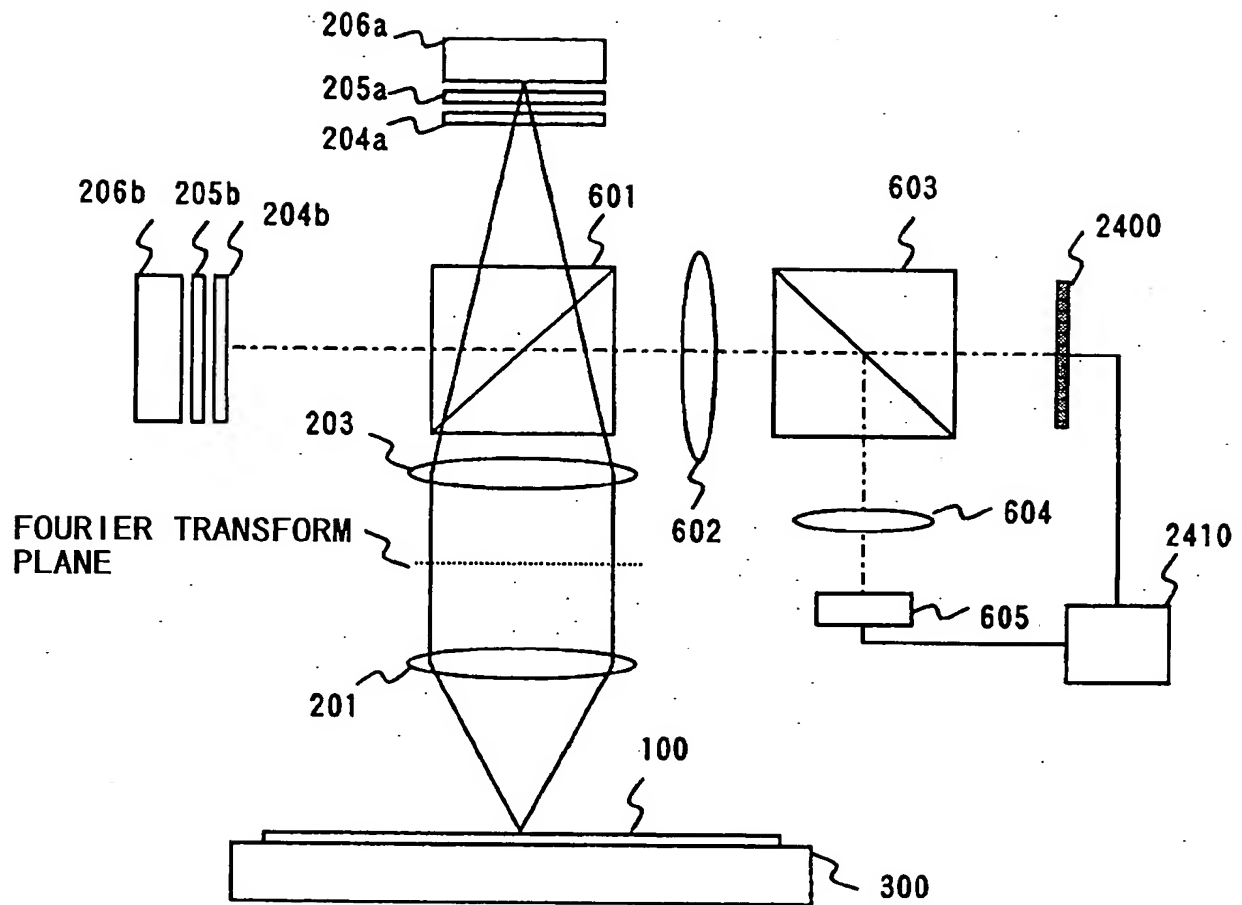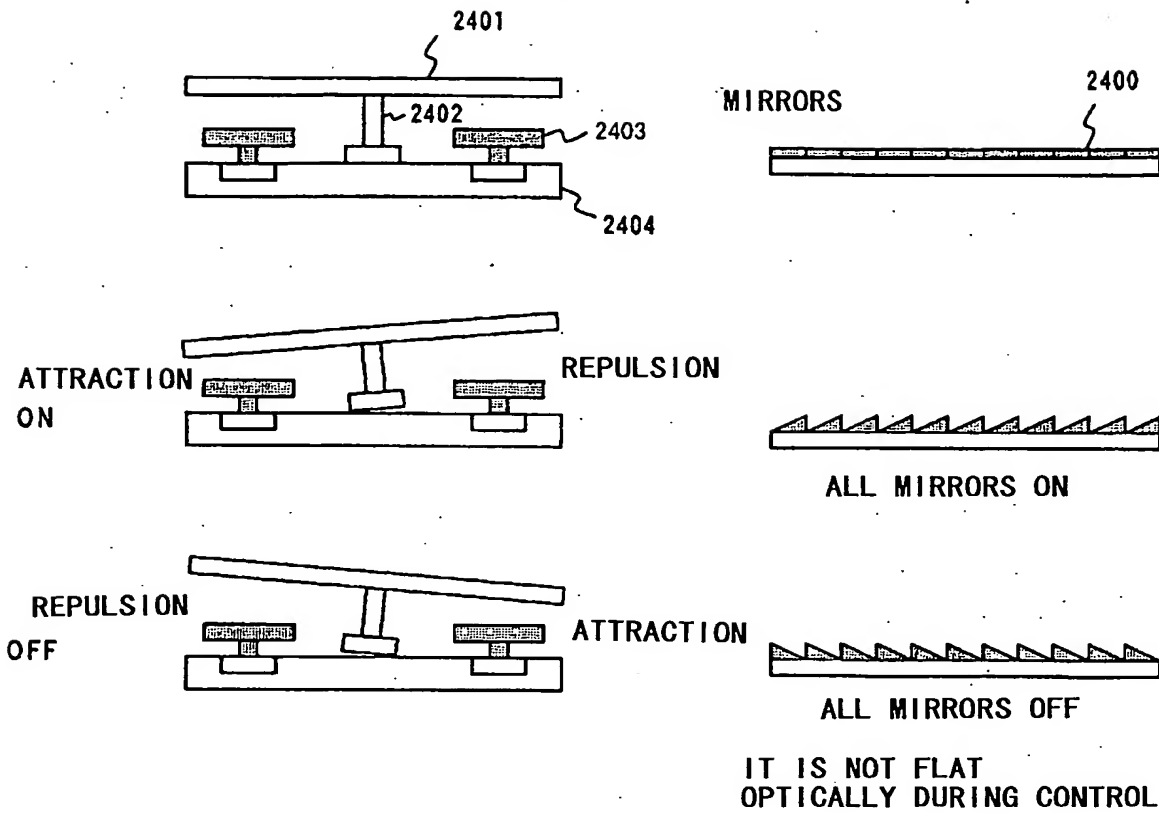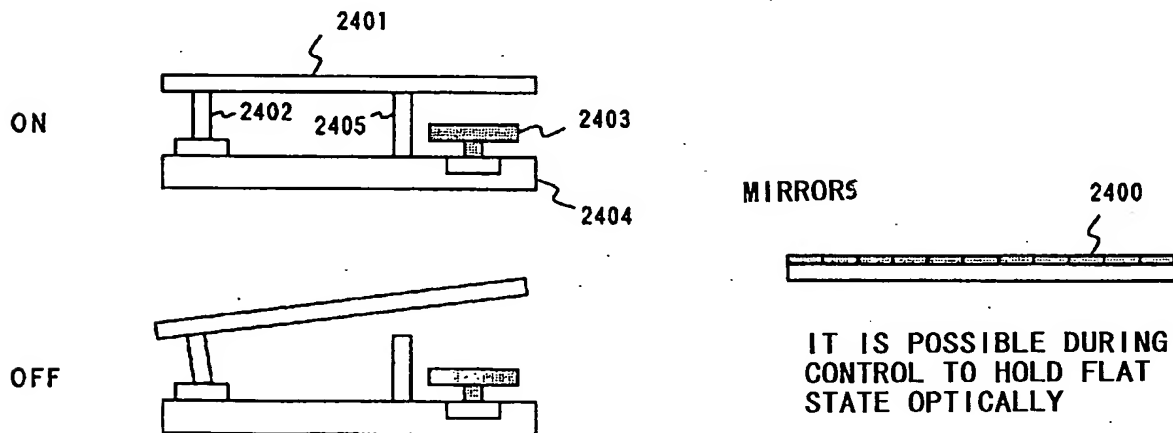|	TRANSMISSION TYPE LIQUID CRYSTAL	MIRROR ARRAY DEVICE
OPENING RATE TRANSMISSION RATE	✕ LOW OPENING RATE ✕ POLARIZATION NECESSITY	◯ HIGH OPENING RATE ◯ POLARIZATION NEEDLESSNESS
COMPOSITION OF OPTICAL SYSTEM	◯ TRANSMISSION	✕ REFLECTION OPTICAL SYSTEM NECESSITY

Fig. 8

Fig. 9

MIRRORS   2400

ATTRACTION
ON   REPULSION

ALL MIRRORS ON

REPULSION
OFF   ATTRACTION

ALL MIRRORS OFF

IT IS NOT FLAT
OPTICALLY DURING CONTROL

Fig. 10

ON

OFF

MIRRORS   2400

IT IS POSSIBLE DURING
CONTROL TO HOLD FLAT
STATE OPTICALLY

Fig. 11

Fig. 12

Fig. 13

605

602

202

FOURIER TRANSFORM
PLANE

201

1

Fig. 14

CHIP LAYOUT

D (NO PATTERN)

Fig. 15
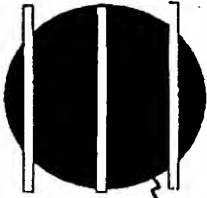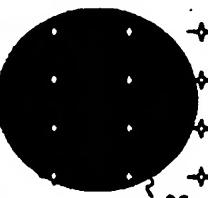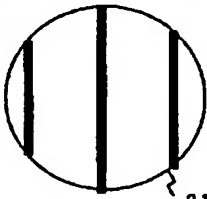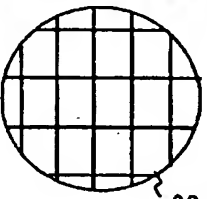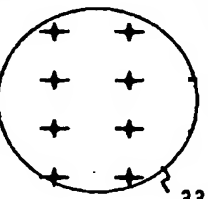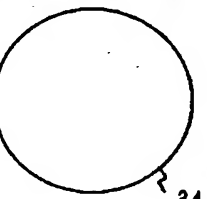
	AREA A	AREA B	AREA C	AREA D
DIFRACTION PATTERN	21	22	23	24
OPTIMAL SHIELDING PATTERN	31	32	33	34

Fig. 16

INSPECTION METHOD 1

SPATIAL FILTER PATTERN

31

12   13

B   C

14

A

11

SENNSIVITY

LOW   HIGH
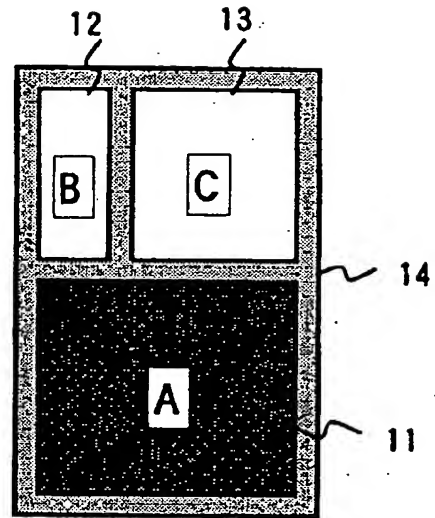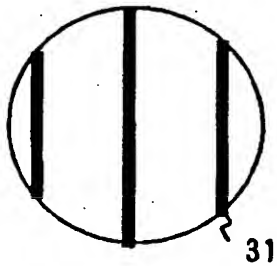
Fig. 17

INSPECTION METHOD 2
(SPATIAL FILTER CORRESPONDING
WITH ALL AREAS)
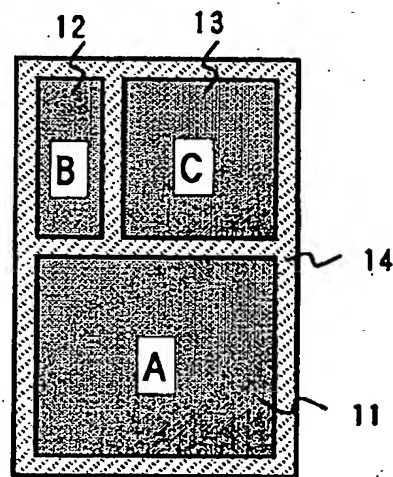
SPATIAL FILTER PATTERN

41

12   13

B   C

14

A

11

SENNSIVITY

LOW   ▨   ▦   ■   HIGH
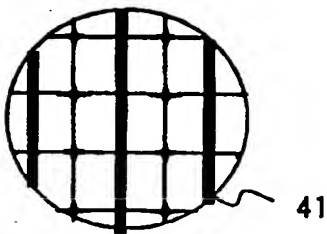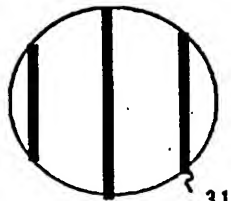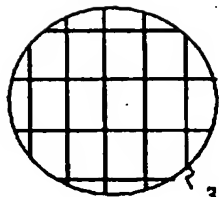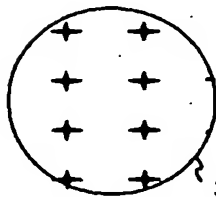
Fig. 18

INSPECTION METHOD 3
(SPATIAL FILTER ACCORDING TO
EACH AREA)

SPATIAL FILTER PATTERN

31

32

33

34

A

B

C
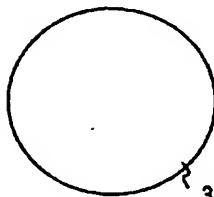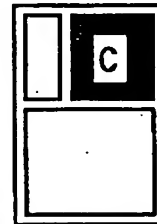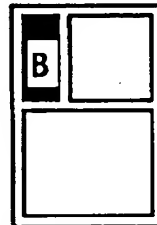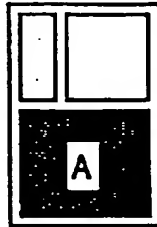
D

AFTER INSPECTION RESULT MERGE

SENNSIVITY

LOW | | ▨ | ▦ | ▓ | HIGH

Fig. 19

CLOCKWISE TWINING SPRING SYSTEM	CLOCKWISE TWINING SPRING — UNCLOCKWISE TWINING SPRING SYSTEM

Fig. 20

CHIP SCAN

12   13

B   C

14   D (NO PATTERN)

A   11

CHIP SCAN LINE

CHIP LAYOUT

Fig. 21
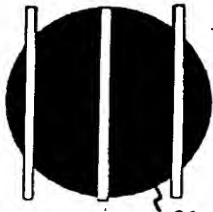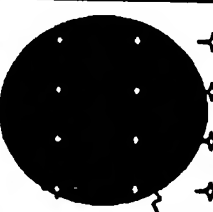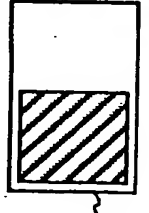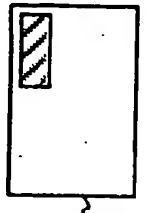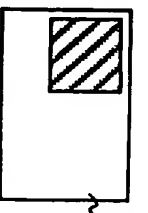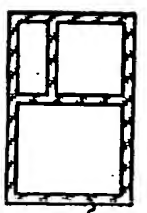
	AREA A	AREA B	AREA C	AREA D
DIFFRACTION PATTERN	21	22	23	24
CORRESPONDENCE POSITION	21	22	23	24

Fig. 22

FILTER PATTERN SETTING

S50

DIFFRACTION IMAGE
ACQUISITION

S51

IMAGE PROCESSING
(CHANGE TO SHIELDING
PATTERN)

S52

SHIELDING PATTERN
GENERATION

25

35

Fig. 23

INSPECTION CONDITION (RECIPE) SETTING

KIND NAME, PROCESS NAME — S60

WAFER SIZE
CHIP MATRIX
SHOT MATRIX
CHIP SIZE — S61
TEG CHIP
INSPECTION DIRECTION
ALIGNMENT CHIP
ALIGNMENT PATTERN

SETTING INSPECTION THRESHOLD VALUE
ACCORDING TO EACH AREA — S62

SETTING OF INSPECTION /
NON-INSPECTION AREAS — S63

SETTING OF SENSITIVITY
ACCORDING TO EACH AREA — S64

SETTING OF SPATIAL FILTER
ACCORDING TO EACH AREA — S65

TRIAL INSPECTION 1 — S66

SETTING OF LASER POWER
ACCORDING TO EACH AREA — S67

TRIAL INSPECTION 2 — S68

REVIEW OF DEFECT CANDIDATE — S69

THRESHOLD VALUE CORRECTTING — S70

INSPECTION — S71

INSPECTION RESULT OUTPUT — S72

Fig. 24

PATTERN PITCH: d

11
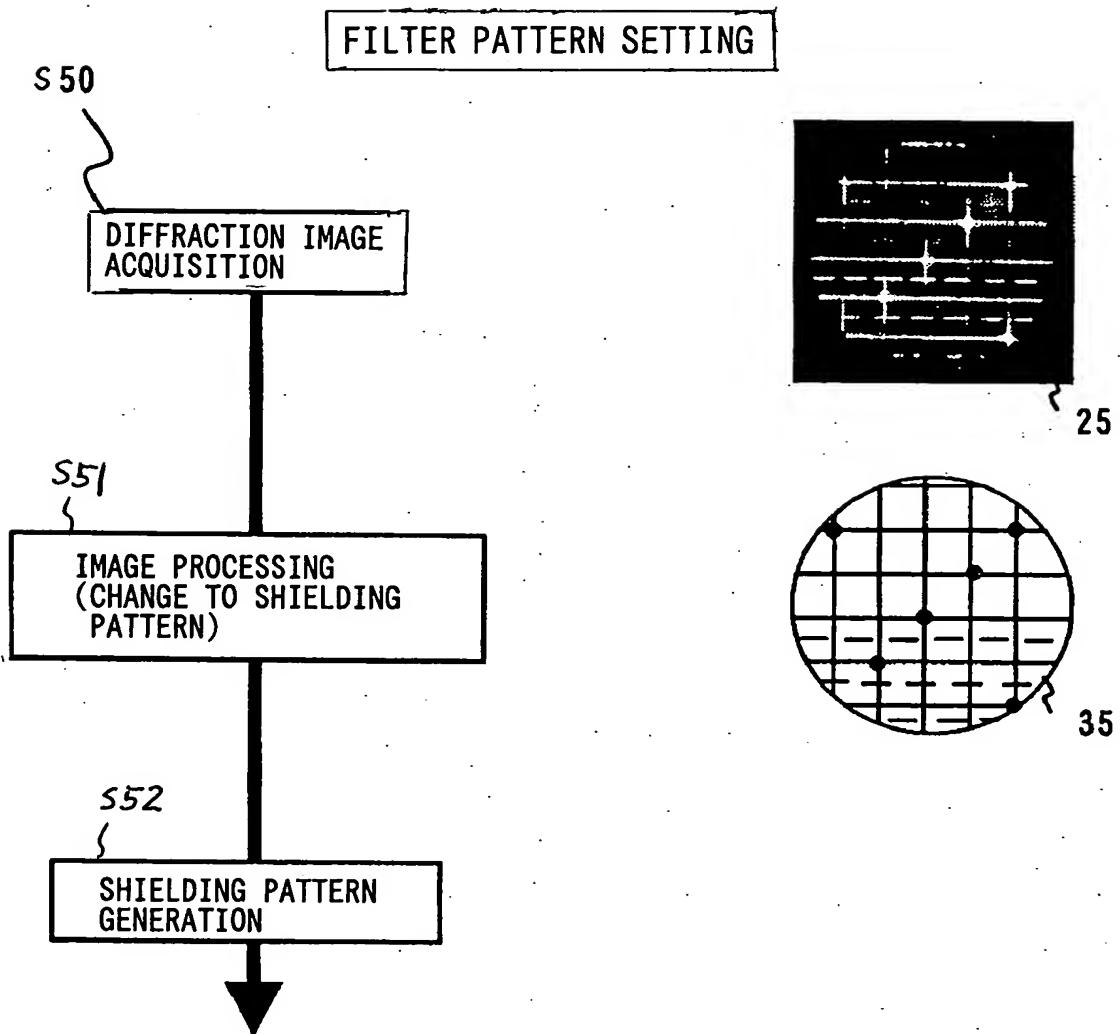
11'
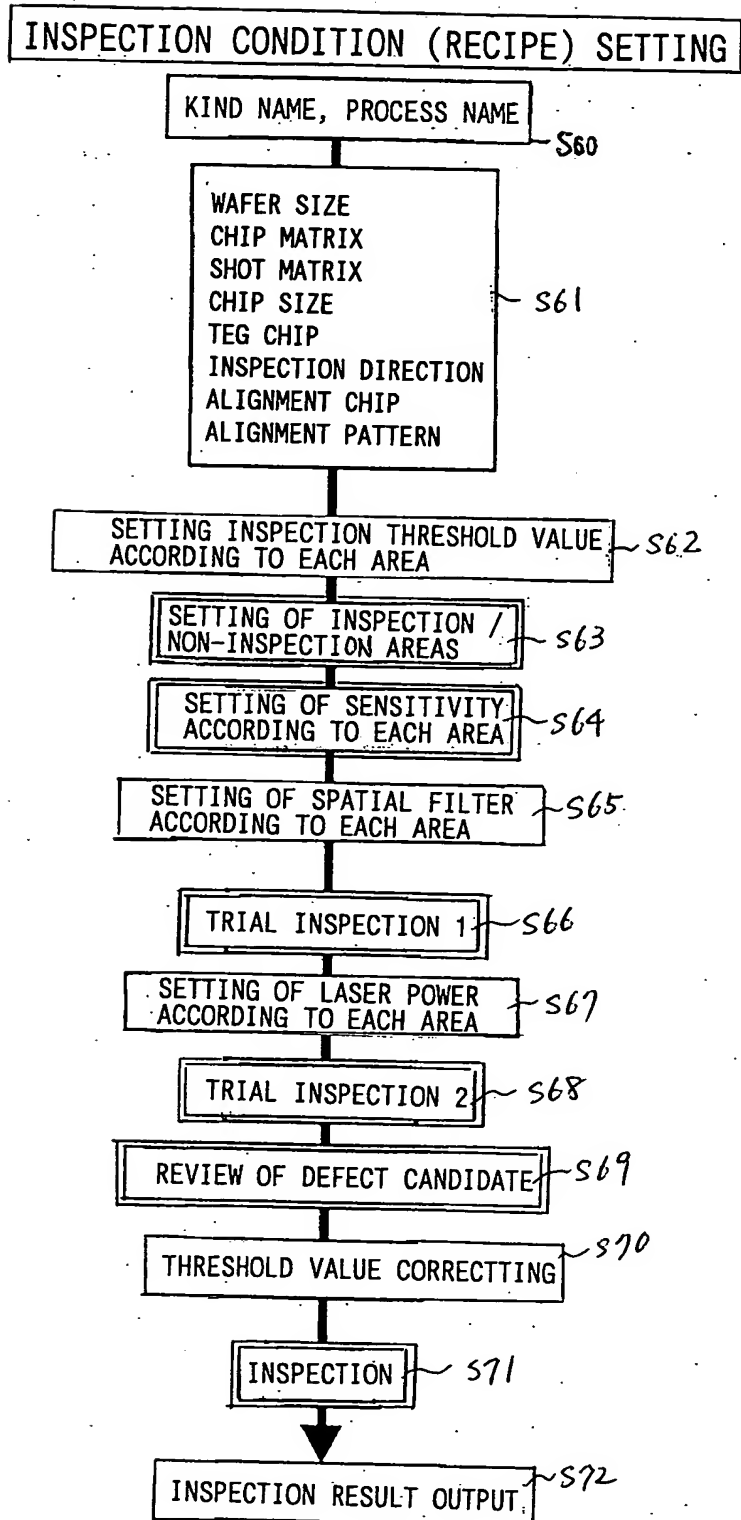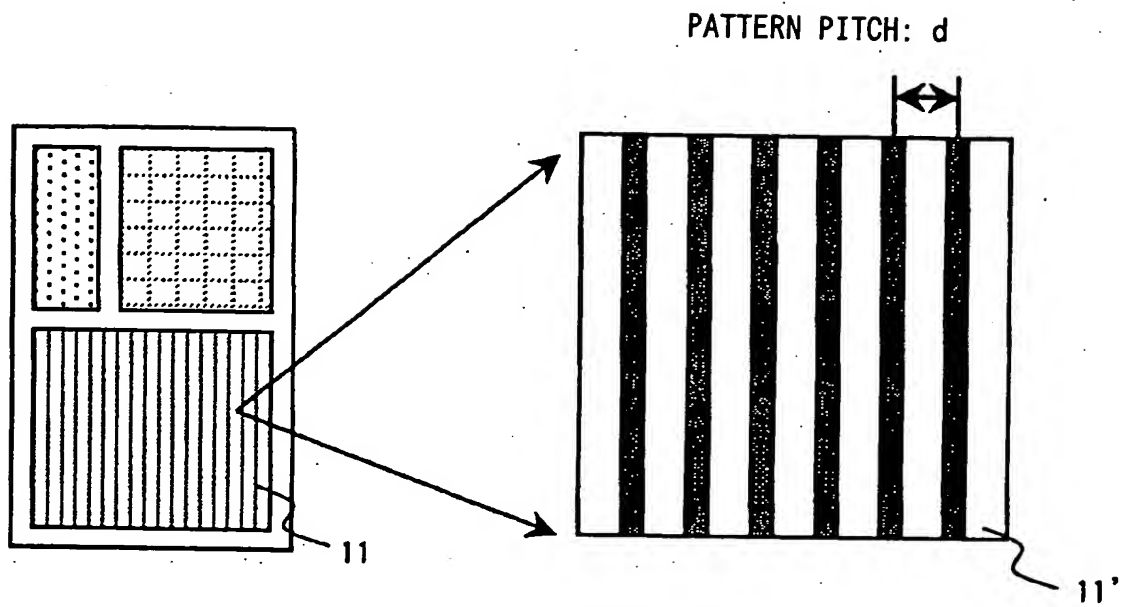
DIFFRACTION PITCH (P) BEING
CALCULATED FROM PATTERN PITCH (d)

$$p = \frac{f \cdot \lambda}{d}$$

Fig. 25

SIGNAL VALUE

70 PATTERN SIGNAL

A ——— A'

BEFORE SPATIAL FILTER SETTING

SIGNAL VALUE

71 DEFECT SIGNAL

A ——— A'

AFTER SPATIAL FILTER SETTING

Fig. 26

PROCESS MANAGEMENT SYSTEM 81

DEFECT MANAGEMENT SYSTEM 82

91   92

801   802   803   804